2. EXISTING CONDITIONS

INTRODUCTION

This chapter provides a description of existing conditions along the State Route 89 Cascade to Rubicon Bay corridor. Information is based on field visits, U.S. Forest Service GIS map layers, USGS topographic maps, existing planning documents, aerial photographs, and conversations with Caltrans, the Tahoe Regional Planning Agency, U.S. Forest Service, and other state and local agency staff.

BACKGROUND

PROJECT SETTING AND HISTORY

Completion of a Class I bikeway around Lake Tahoe has long been an objective of local planners and bicycle advocates. Stemming from this interest, the Lake Tahoe Bikeway 2000 was initiated by the Tahoe Regional Planning Agency in the early 1990s. The project was intended to provide for a complete connected loop of bike lanes and paths around the Lake by the year 2000. Although the original goal date has passed, much of the Bikeway 2000 network has been implemented. The SR-89 Cascade to Rubicon Bay corridor is the only remaining corridor to be studied in detail for the possibility of accommodating a bikeway, and one of the most challenging sections of the Lake for accommodating either on- or off-street bicycle facilities.

OVERVIEW OF CORRIDOR

The project study area encompasses the State Route 89 (SR-89) corridor from Cascade to Rubicon Bay. **Figure 2-1, Location Map** shows the regional location of the project site, and **Figure 2-2, Corridor Vicinity Map**, shows a detailed view of the project corridor area. The official Caltrans project study segment is approximately 9 miles in length (Post Mile 13.24 to Post Mile 22.24), although the scope of this document covers the corridor from approximately Camp Richardson to the Meeks Bay area. Throughout this corridor, SR-89 is a two-lane highway extending through curving and mountainous terrain. The average lane width through the corridor is 11 feet with little or no shoulder area (standard lane width for highways is 12 feet).

State Route 89 is a north-south highway that originates off US 395 north of Topaz, California, and extends in a northwesterly direction through the northern Sierra Nevada, terminating at Interstate 5 near the town of Mount Shasta. In the Lake Tahoe area, SR-89 extends north over Luther Pass from Hope Valley to Meyers, where it joins with US 50. At South Lake Tahoe, the two highways split, with SR-89 extending north along the west shore of the Lake to Tahoe City. At Tahoe City, SR-89 continues north to Truckee where it connects to Interstate 80.

GOALS AND OBJECTIVES

The Lake Tahoe Basin has been steadily developing bicycle facilities for residents and visitors over the past 20 years. Due to the success of these facilities and the overall health, transportation, and air quality benefits of encouraging bicycling, a major regional goal has been to complete a bikeway system around the Lake. One of the major existing gaps in that system is the segment around Emerald Bay. The SR-89 Cascade to Rubicon Bay bikeway, when completed, will improve safety, attract a greater diversity of bicyclists, help reduce traffic congestion, improve air and water quality, and have direct health benefits to residents and visitors.

The overall goals and objectives for the project are identified below.

Goal 1: The project should improve safety conditions for bicyclists in the corridor.

Objective A: Safety. Maximize safety for all non-motorized and motorized users through the corridor.

Objective B: Conflicts. Minimize potential conflicts between pedestrians, bicyclists, and motor vehicles.

Goal 2: The project should provide the maximum benefits to the public.

Objective A: Positive Environmental Benefits. Enhance the overall environment in the corridor by helping to reduce vehicle traffic and parking and improving access to environmental resources to the public.

Objective B: Connectivity. Provide links and improves access to important destinations along the corridor including Inspiration Point, the Eagle Falls parking area, the Vikingsholm parking area, D.L. Bliss State Park, and Meeks Bay.

Objective C: Range of User Groups. Maximize the range of potential users of any new facility or service, including users of all ages and abilities. Understand the needs, capabilities, and interests of each user group, and consider this in the design of any solution(s).

Objective D: Function. Maximize the functional aspects of any recommendation in terms of convenience, gradients, availability, directness, access, cost, and connectivity to major destinations.

Objective E: Cost Effectiveness. The project should offer the best combination of effectiveness with lowest capital and operating cost, and should be consistent with existing and future local and regional improvement projects wherever possible.

Objective F: Transportation. The project should offer a transportation benefit to the region by offering an effective alternative to the motor vehicle, whether that is for work or recreational trips. The project should enhance overall transportation mobility and options in the area.

Objective G: Visual Amenity. The project should offer an enjoyable experience for users, including access to visual, cultural, and natural resources

Objective H: Recreation Amenity. The project should improve access to recreational amenities.

Objective I: Seasonality. The project should remain functional as long as possible for the course of a year.

Goal 3:The project should minimize negative impacts to the environment and local communities.

Objective A: Environment. The project should not result in significant negative environmental impacts in terms of direct construction impacts (water quality, historical and archaeological resources, etc.) and indirect impacts (increased demand on local resources such as Emerald Bay that are already over capacity, traffic capacity, financial resources, etc.).

Objective B: Property Impacts. The project should avoid or minimize impacts to private property and residential neighborhoods, including the need to acquire right of way or easements.

Objective C: Visual Impacts. The project should not result in significant impacts to the visual resources of the corridor, especially in the Emerald Bay area.

Objective D: Parking. Localized parking demand associated with the project should not have a negative impact in local neighborhoods.

Goal 4: The project should be consistent with adopted policies, standards, and goals.

Objective A: Consistency: The project is consistent with the local, regional, and State adopted standards, policies, and goals.

USER GROUPS

Consideration of the type of cyclist user group that will utilize the SR-89 Cascade to Rubicon Bay corridor is an important aspect of this Bikeway Study. Different types of cyclists will demand widely different types of facilities, and what is desirable by one user group may be completely inappropriate for another. This section describes the typical cyclist user groups in an attempt to define what types of bikeway facilities may be best suited for their specific needs.

Recreational Cyclists

The term "recreational" cyclist covers a broad range of skill and fitness levels. Recreational cyclists can range from a hardcore racer who does 100-mile rides each weekend to a family with young children who occasionally want to ride a couple miles down a quiet bike path. A cyclist's level of skill, fitness, and comfort on the road will determine what type of facility they are looking for. In order to characterize these differences, this study breaks Recreational Cyclists into two subcategories: "Road Cyclists" and "Casual Cyclists," acknowledging that these are generalizations and that the average cyclist may have attributes of both user groups.

Road Cyclists

Road cyclists are those who will bike almost exclusively on street, because roadways are the type of facility that accommodates their desire for higher speeds, longer distances, and few conflicts with other recreational users. Typical trip distances for the road cyclist can range from 20 miles to over 100 miles. While the average road cyclist would likely prefer to ride on roads with little or no traffic, they are generally comfortable riding in traffic if necessary. To this end, a road cyclist will tend to ride in a manner similar to a motor vehicle (e.g. when approaching traffic signals or making left turns). Road cyclists are typically not seeking a recreational destination along the route, as the ride itself is the recreation. In fact, special cycling clothing and shoes tend to limit the ability of the road cyclist to walk around off the bike.

In the uphill direction, road cyclists will typically be traveling slower than motor vehicles, and will normally try to keep as far right as possible. In these areas extra shoulder width is helpful in giving vehicles additional room to pass. On downhill descents, skilled road cyclists can often travel at, or even faster than the speed of traffic. In these situations, they will normally move toward the center of the lane to provide easier maneuverability. On winding descents, skilled cyclists can take corners faster than vehicles, and it is not uncommon for a road cyclist to get stuck behind a line of vehicles on a twisty descent.

Due to the relatively narrow width and thin casing of standard road bike tires, road cyclists are often susceptible to flat tires. As such, road cyclists are very concerned about glass, rocks, and other debris on the road or in the shoulder. In addition, loose material on the road such as sand or gravel can cause skinny road tires to lose traction and wash out on curves. Since most road debris tends to end up in the shoulder, road cyclists will tend to move into the travel lane if any debris is present in the shoulder that might cause a flat tire or other hazard. This can sometimes lead to conflicts with motor vehicles, as many motorists don't understand why a cyclist is riding in the lane if there is a seemingly good shoulder available.

Although very dependent on the fitness level of the rider, topography is less of a limiting factor for road cyclists; in fact, many road cyclists seek out routes that involve challenging and scenic terrain, which is often hilly. For an experienced road cyclist, the SR-89 Cascade to Rubicon Bay corridor might be part of a ride around Lake Tahoe or, for cyclists on the north shore, part of a ride south toward Luther Pass.

Casual Cyclists

Casual recreational cyclists are those who generally want to ride on off-street bike paths, are seeking a more relaxed cycling experience, and cover shorter trip distances at slower speeds. Casual cyclists will tend to do trips of less than 10 miles in length, and often ride more comfort-oriented bikes, hybrid or mountain bikes. Casual cyclists may ride as a family group, with children, and because they are more likely to ride with others of varying skill and fitness levels, flat topography is generally desired. Casual cyclists are typically not comfortable riding in traffic, and will avoid riding on busy streets when possible, riding on the sidewalk if necessary. Bike routes that extend through low-traffic residential streets are generally acceptable for casual cyclists, even if they are not the most direct route between destinations. Casual cyclists may load their bikes in their cars and drive to a bike path, and are more likely in need of parking areas. Having recreational amenities and features along the route is more important to the casual cyclists, such as drinking fountains, shaded areas, picnic tables, interpretive signs, and scenic vistas. Recreational destinations are also important for casual cyclists, as they provide a place to stop and get off the bike and walk around. To this end, having secure bike parking at destinations is important.

For the average casual cyclist, portions of the SR-89 Cascade to Rubicon Bay corridor may be too challenging, regardless of the type of facility that is installed. Families with small children, or those less inclined to tackle hills, may want to avoid the type of steep topography that presents itself along the corridor. As such, the area between Cascade Creek and Vikingsholm would likely have limited appeal to the casual cyclist. However, other areas of the corridor, such as between D.L. Bliss State Park and Meeks Bay, topography is not as extreme and opportunities for flatter trails that would appeal to casual recreational cyclists are possible.

Commuter Cyclists

The SR-89 Cascade to Rubicon Bay corridor does not appear to have large potential to serve commuter cyclists. The nearest population center along the corridor would be the Rubicon Bay and Meeks Bay communities. It is not anticipated that a large number of bicycle commuters would travel between those areas and employment centers in South Lake Tahoe. However, there may be some individuals who would commute via this route. Commuting this segment of highway would be limited to the summer and fall months when the road is free of snow. Due to the length and topography of the trip, the characteristics of these commuters would be expected to generally match the road cyclist category, in that they would be seeking a direct, on-road route through the corridor.

Utilitarian Cyclist

Utilitarian cycling trips refer to the use of the bicycle for shopping, errands, and other local trips. As with commuting, for most local residents of the Rubicon Bay and Meeks Bay communities, using a bicycle for utilitarian trips would not be practical due to the distance to major shopping areas in South Lake Tahoe.

However, there may be some potential for the corridor to accommodate "recreation-related utilitarian" trips, meaning those trips between the camping areas small shopping areas within the corridor. These may include trips between D.L. Bliss State Park and the small grocery store at Meeks Bay, or trips between Eagle Point Campground and the Camp Richardson area. In these cases, visitors to the area who have limited shopping needs could combine a utilitarian trip to the store with a recreational trip, if a desirable bicycling facility was available. These types of desired facilities of the recreational utilitarian trip would likely be similar to those desired by the casual recreational cyclist, e.g. off-street facility, short distance, with recreational amenities along the way. Residents of the Rubicon and Meeks Bay communities may also conduct some recreation-related utilitarian trips, such as riding from their homes to local beach or park areas.

PLANNING AND POLICY CONTEXT

This section discusses the key public agencies involved in the SR-89 Cascade to Rubicon Bay Bikeway Study, and major relevant planning and policy documents prepared by each.

AFFECTED AGENCIES

California Department of Transportation

The State of California, Department of Transportation (Caltrans) is responsible for the design, construction, maintenance, and operation of the California State Highway System, as well as that portion of the Interstate Highway System within the state's boundaries. Caltrans has jurisdiction over the SR-89 right-of-way, and is serving as the lead agency for this bikeway study.

Tahoe Area Projects

As part of its role in implementing the Lake Tahoe EIP, Caltrans is conducting a number of roadway-related improvement projects around the Basin. Many of these projects are intended to improve water quality or scenic quality along area highways, but provide transportation and recreation benefits as well. Current Caltrans EIP project on the SR-89 corridor in El Dorado County (Placer County to Alpine County lines) include the following:

Emerald Bay Viaduct Scenic Restoration (EIP Project No. 608). This project is intended to improve scenic quality of the area impacted by the Emerald Bay viaduct by reducing the current high color contrast associated with the viaduct. The scenic threshold will be improved by implementation of this project.

Cascade Creek Area Retaining Walls (EIP Project No 873). This project will develop scenic quality treatment for existing smooth-surfaced concrete retaining walls between Cascade Creek and Emerald Bay. The intent of the project is to reduce the current high contrast associated with the existing smooth finish of the concrete retaining walls and the surrounding more natural backdrop. Implementation of this project is expected to improve the scenic environmental threshold.

Stormwater Quality Improvements (EIP Project No 995.1). Caltrans intends to install stormwater runoff collection, treatment and conveyance facilities along approximately 27.41 mile of SR 89 in El Dorado County. The planned stormwater runoff and erosion control BMP's are intended to minimize runoff pollution that could enter Lake Tahoe. This project anticipates improvement in the water quality and soil conservation environmental thresholds.

Deputy Directive 64

Deputy Directive (DD) 64 requires that Caltrans "fully considers the needs of non-motorized travelers (including pedestrians, bicyclists and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products." As part of this policy, Caltrans adopts the U.S. Department of Transportation's Policy Statement on Integrating Bicycling and Walking into Transportation Infrastructure, which provides design guidance on accommodating bicycle and pedestrian travel. DD 64 identifies numerous Department responsibilities to ensure that the needs of non-motorized travelers are incorporated into all Caltrans activities. The SR-89 Cascade to Rubicon Bay Bikeway Study, by evaluating options for improving bicycle access along a State Highway facility, is in compliance with DD 64.

Tahoe Regional Planning Agency

The Tahoe Regional Planning Agency (TRPA) was formed in the late 1960s when the governors and lawmakers in California and Nevada approved the Tahoe Regional Planning Compact, establishing a regional planning agency to oversee development at Lake Tahoe. In 1969, the United States Congress ratified the agreement and created the TRPA. The Compact, as revised in 1980, gave TRPA authority to adopt environmental quality standards, called thresholds, and to enforce ordinances designed to achieve the thresholds. The TRPA's mission is to lead the cooperative effort to preserve, restore, and enhance the unique natural and human environment of the Lake Tahoe Region.

TRPA is the designated Regional Transportation Planning Agency (RTPA) for the California portion of the Tahoe Region. More recently, TRPA was designated as a federal Metropolitan Planning Organization (MPO). Being an MPO, TRPA now receives planning funds through the Federal Highway Administration and is responsible for addressing Federal emphasis areas of transportation planning. TRPA is currently in the process of updating the 1992 Regional Transportation Plan (RTP), which will provide the foundation for transportation planning in the Tahoe Region.

Lake Tahoe Environmental Improvement Program

The Lake Tahoe Environmental Improvement Program (EIP) is an integrated improvement program designed to accelerate achievement of environmental threshold carrying capacities established for the Lake Tahoe Region. The EIP strategy is designed to accomplish, maintain, or exceed multiple environmental goals and develop an integrated, proactive approach to environmental management within the Region. The threshold standards are long-term and define a level of environmental quality that the Region desires to achieve. The EIP document describes actions that need to be implemented to attain and maintain environmental threshold carrying capacities for nine established indicators:

- Water quality
- Soil conservation
- Air quality
- Vegetation
- Wildlife habitat
- Fish habitat
- Recreation
- Scenic resources
- Noise

Volume 2 of the EIP provides a comprehensive master list of science, program, and project needs that are necessary to restore and maintain environmental thresholds for the Lake Tahoe Basin. These actions are intended to occur over a twenty-year timeframe to achieve thresholds. Eligibility requirements for inclusion into the EIP are found in the TRPA's Code of Ordinances, and generally state that a project must directly relate to the respective threshold program and contribute to the attainment of that threshold. In total, the EIP identifies over 700 projects and programs needed to meet the environmental thresholds. The EIP also identifies the many agencies and organizations at the federal, state and local levels responsible for funding EIP projects and programs. The EIP was most recently updated in 2001.

The Air Quality/Transportation Threshold Program of the EIP includes several bikeway projects along or connecting to the SR-89 Cascade to Rubicon Bay corridor, listed below (project descriptions and lead agency identifications come directly from the EIP).

- Class I: SR-89 Spring Creek to Cascade [EIP Project Number 766]. A Class I bicycle trail will be constructed from the current end of the USFS bicycle trail at Spring Creek Tract to Cascade Properties. *Lead Agency: El Dorado*
- Class III: SR-89 Cascade to Emerald Bay (North End) [EIP Project Number 765]. A Class III bicycle trail will be developed to connect from the eventual end of the Class I trail at Cascade to the north end of Emerald Bay. *Lead Agency: Caltrans*
- Class I: Emerald Bay (North End) to D.L. Bliss State Park [EIP Project Number 764]. A Class I bicycle trail will be developed from the north end of Emerald Bay to D.L. Bliss State Park. *Lead Agency: California State Parks*
- Class I: D.L. Bliss to Meeks Bay [EIP Project Number 10039]. Construct a Class I trail between D.L. Bliss State Park and Meeks Bay. *Lead Agency: USFS*
- West Shore Bike Trail Extension and Improvements [EIP Project Number 10042]. Extend the TCPUD paved trail from its current terminus at Sugar Pine Point State Park to Meeks Bay Resort and filling in missing links in the existing West Shore trail network. *Lead Agency: TCPUD*